EXECUTIVE SUMMARY

HIV/AIDS Annual Report – February 2008
State of Arizona

General Comments:

In Arizona's HIV/AIDS reporting, estimates of incidence are based upon the sum of new HIV cases, and new AIDS cases which were not diagnosed as HIV infections in any prior calendar year. These cases are referred to as *emergent* cases and are used as an estimate of incidence. Cases of HIV/AIDS can only be counted as emergent in the year they were first diagnosed with HIV infection. Persons who were emergent as HIV and diagnosed as AIDS in the same calendar year are counted as emergent AIDS to avoid double counting. This method is the most straightforward method available for estimating incidence.

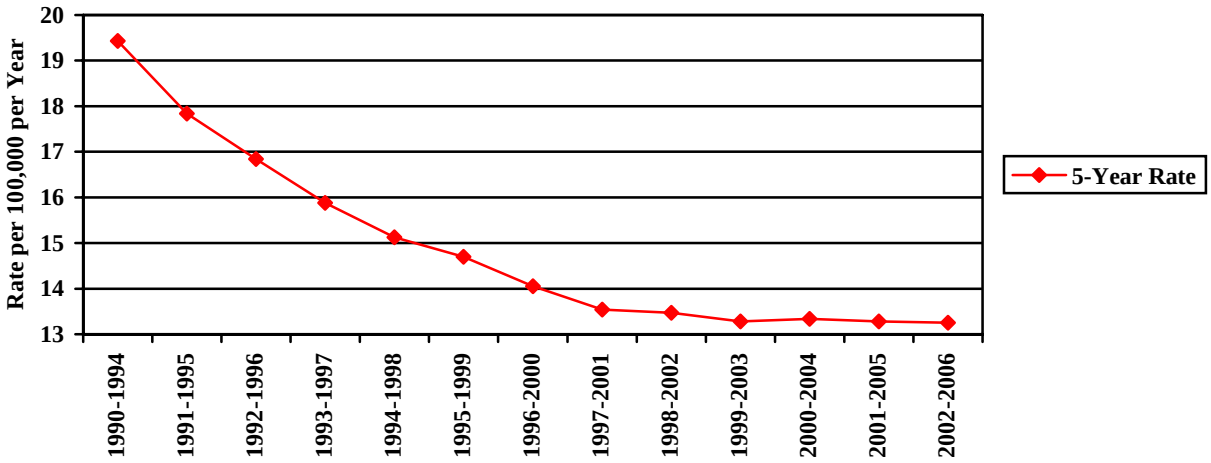
This report includes current (2/1/08) estimated prevalence, 2006 reported *emergent* case counts, and the 2006 population estimate for each county or region. For comparison to prior period prevalence or incidence, please refer to previous annual reports. Incidence estimates for the 5-year reporting timeframes (1997-2001 and 2002-2006) used in this report are expressed as annualized rates for purposes of valid comparison with the 5-year timeframes in prior annual reports, or single-year annual rates provided elsewhere. These annualized 5-year rates may be regarded as the average annual rate across the 5 years in the reporting timeframe.

In 2007, the Arizona Department of Health Services Office of HIV/AIDS was integrated together with the Sexually Transmitted Diseases (STD) and Hepatitis C prevention programs to form the Office of HIV, STD, and Hepatitis C Services. In addition, Arizona's HIV/AIDS data systems transitioned to the new Enhanced HIV/AIDS Reporting System (EHARS) in early 2008. The HIV/AIDS program is developing improved linkages between State or County disease prevention programs, and care delivery programs under the Ryan White Treatment Modernization Act. These efforts will improve delivery of care to persons living with HIV/AIDS in Arizona, and improve the quality of data reporting upon which these programs depend.

Current Data:

After tracking trends in emergent HIV infection, and prevalence for 4 years, a sufficient body of data now exists for trend patterns to be discussed. The State of Arizona is currently experiencing some of the most rapid population growth in the nation. Most of that growth is taking place in the Phoenix Metropolitan area. Recent trends show the 5-year HIV/AIDS emergence case rate has been declining. 5-year average case rate trends are shown in Figure 1 below. 5-Year average rates are not as subject to year-on-year variance as annual rates.

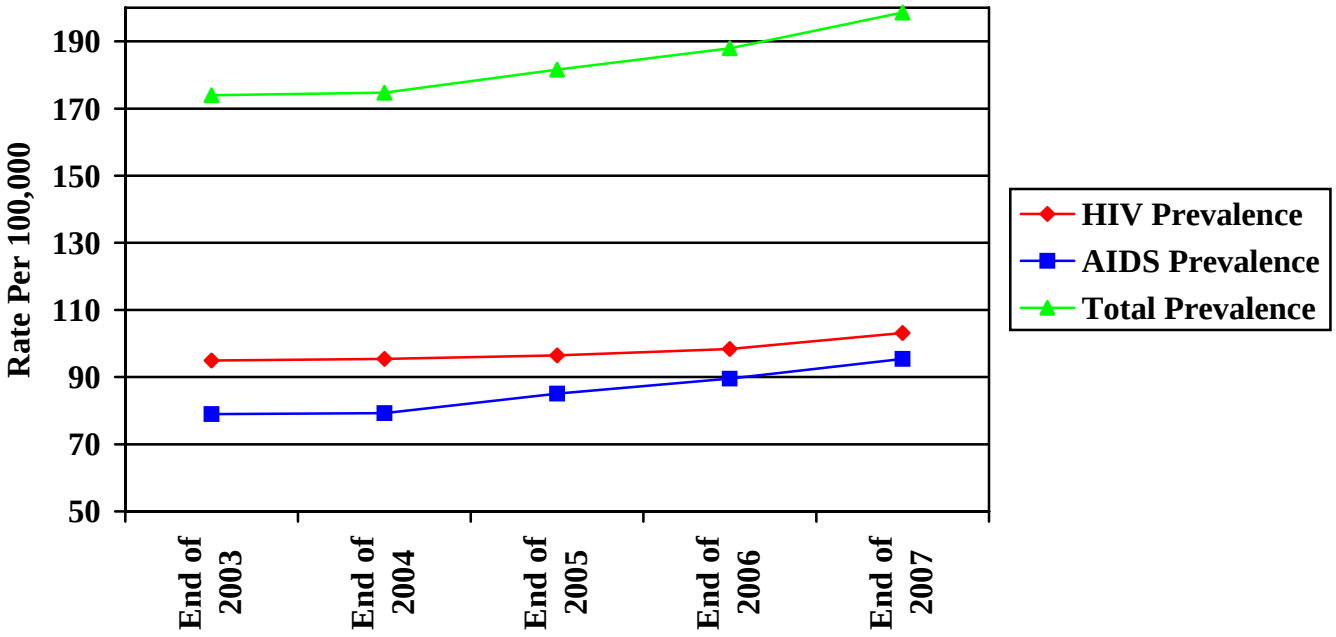
Figure 1: Arizona 5-Year Emergent HIV/AIDS Case Rate Trend



The five-year emergent HIV/AIDS case rate declined steadily throughout the 1990's, leveling off from the 1998-2002 time period to the present. According to the most recent estimates of the Center for Disease Control and Prevention (CDC), the 2005 estimated HIV/AIDS diagnosis rate for Arizona was just under the national rate and was higher than two-thirds of states with well-established confidential name-based HIV reporting (CDC slide set, 2005 data).

Arizona is currently considered to be a moderate morbidity state, with CDC-estimated prevalence in the middle rate category among states with well-established confidential name-based HIV reporting. But prevalence rates have been rising in Arizona. The increase in prevalence rates appears to be due to the efficacy of multi-drug treatments for HIV infection, which have sharply reduced HIV-related death. Prevalence Trends are shown in Figure 2 below.

Figure 2: Arizona HIV/AIDS Prevalence Rate Trend

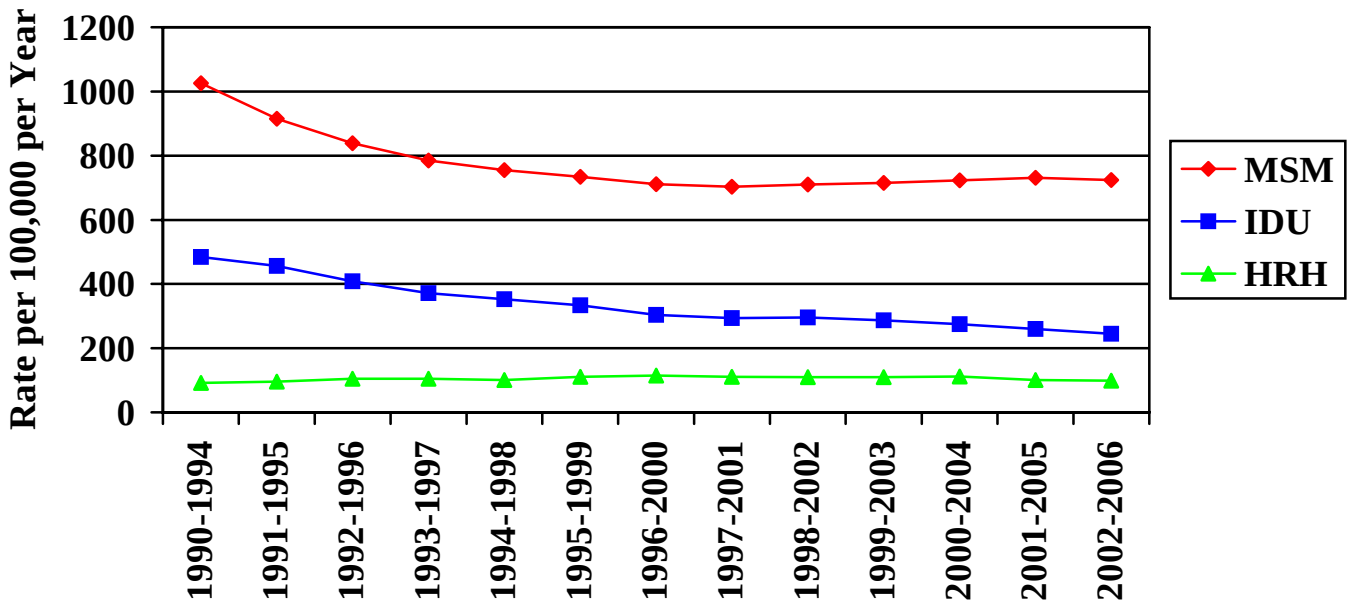


If current prevalence trends continue, within the next 2 to 4 years the number of persons living with AIDS in Arizona will surpass the number of persons with HIV infection who have not been diagnosed with AIDS. Because the burden of HIV-related disease is greater among persons with AIDS, treatment, utilization, and continuity of care will become increasingly critical issues.

While emergent rates have been declining, that trend has not been consistent across all risk categories. Rates of emergent HIV infection among persons reporting injection drug use (IDU) have declined consistently, and among persons reporting high-risk heterosexual activity (HRH) they seem to have remained level since 1990. But among men who have sex with men (MSM) emergent HIV rates declined to a low in 1999 and have risen slightly since then. These trends are shown in Figure 3 below. Because of different rate patterns between different risk groups, the proportion of the HIV epidemic in MSM is increasing. The proportion of emergent cases that are MSM-related has risen from a low of 60% in 1995 to 69% in 2006. These data, together with study data not reported here, suggest a measurable resurgence in the HIV epidemic in MSM, and may contribute to the slower decline of the emergent HIV/AIDS case rate since 1999.

The CDC's estimates suggest a similar trend across the country, with the proportion of new HIV diagnoses attributed to the MSM risk category increasing from 41% in 2001 to 49% in 2005. While the MSM risk category accounts for the greatest proportion of cases for both Arizona and the U.S., the second most prevalent risk category differs. In Arizona, the second most commonly reported risk is IVDU (16%) while nationally it is HRH (33%).

Figure 3: Estimated Arizona 5-Year Emergent HIV/AIDS Rates by Reported Risk



Pediatric HIV Infection:

In 2006 there were 3 cases of emergent HIV infection among children under age 13 in Arizona, the lowest number in 9 years.

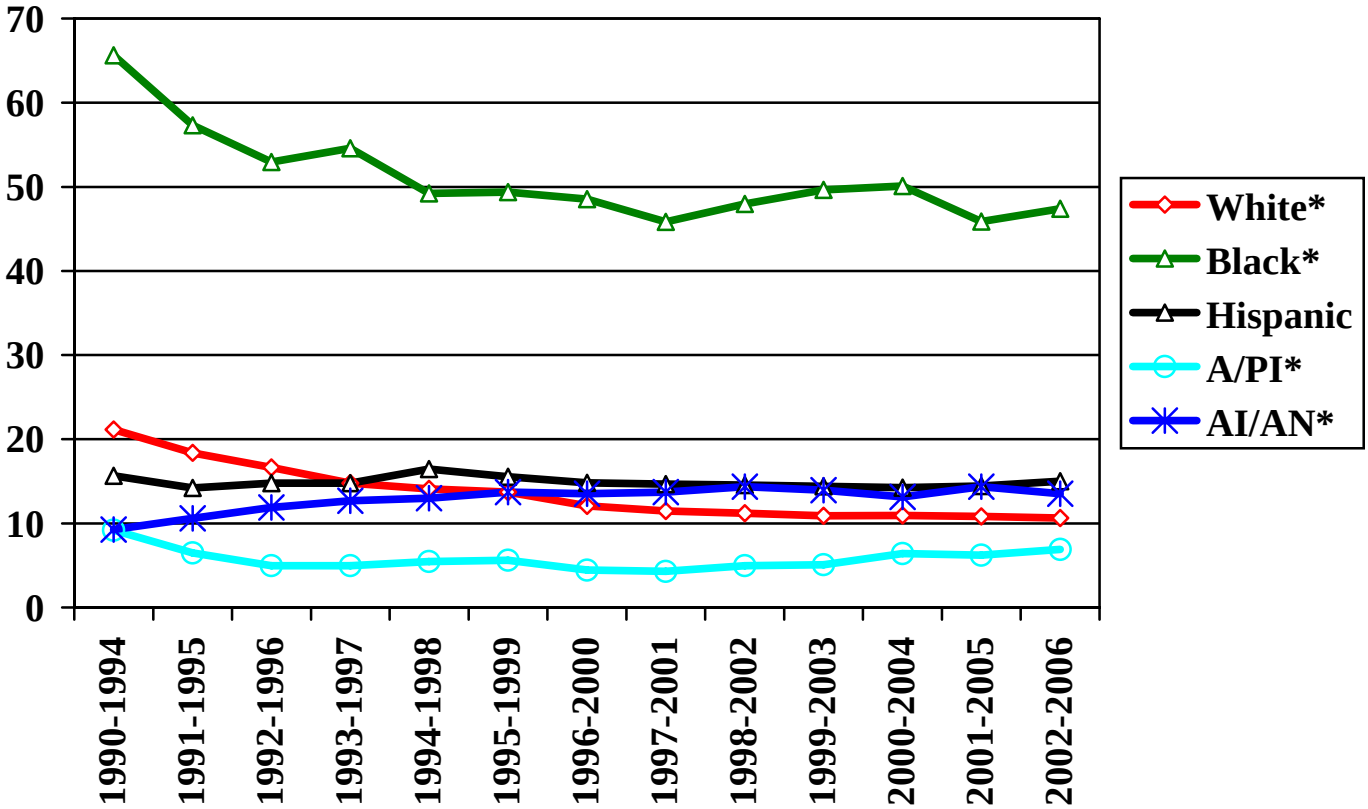
Urbanization of HIV:

Rates of HIV/AIDS prevalence and emergence differ sharply between counties in Arizona that are primarily urban, and those that are primarily rural. At the time of this report, 86% of reported HIV/AIDS prevalent and emergent infections occur in urban counties that contain 76% of the state population. The average rate of HIV/AIDS emergent infection, and HIV/AIDS prevalence in urban counties in Arizona is between 2 and 2.5 times greater than the average in rural counties. Reported rates of HIV/AIDS are highest in Pinal County. The majority of cases reported in Pinal are among prisoners, many of whom are not originally from Pinal County.

Race/Ethnicity Disparities:

Rates of HIV/AIDS prevalence and emergence differ sharply between African Americans and other race/ethnicity groups. African Americans are the only race/ethnicity group in Arizona that experiences such a severe disparity of HIV impact. Currently the emergent HIV/AIDS rate among African Americans in Arizona is more than 4 times that of White Non-Hispanics. This disparity is presented in Figure 4 below.

Figure 4: Arizona 5-Year Emergent HIV/AIDS Rates by Race/Ethnicity



The disparity observed in Arizona among African Americans is also seen across the country. The CDC estimates that in 2006, blacks were 13% of the total population in states with established confidential HIV reporting, and 49% of new HIV diagnoses. As observed in Arizona, CDC also reports a more pronounced racial disparity nationally among women than among men when blacks are compared with other race groups.

Groups of Special Concern:

Effective prevention policy focuses upon groups most adversely impacted by HIV/AIDS, or known to be at greater risk of transmitting HIV infection. In Arizona there is a clear and alarming impact of HIV/AIDS in the African American community. African Americans in Arizona experience an epidemic of HIV/AIDS that is at least a 3 times more severe than any other race/ethnic group. This disparity is more pronounced among African American women than among African American men. Among African American women, the rate of emergent HIV infection is rising. Although HIV has historically been a disease that predominantly affects males in Arizona, the current rate of emergent HIV among African American women is 50% higher than the mean rate among men.

In 2007 Arizona saw a significant outbreak of Syphilis. That epidemic may now be coming under control. The link between Sexually Transmitted Disease (STD) and

increased likelihood of HIV transmission is well established. Since 2002, the number of persons diagnosed with early Syphilis who are men who have sex with men (MSM) has risen by nearly 500%. Rates of HIV incidence among MSM are extremely high (see figure 3 above), and the increase of Syphilis among MSM poses serious public health concerns. For this reason, prevention efforts, including the delivery of priority Partner, Counseling, and Referral Services to HIV infected persons who experience an STD diagnosis should be emphasized.

It is also understood that Highly Active Anti-Retroviral Therapy (HAART) has been extremely successful in preventing HIV related death and disease by depressing viral loads. High viral loads greatly increase the likelihood of HIV transmission. Linking persons with HIV infection to HIV primary care, including HAART therapy should be the foundation of ongoing prevention efforts. Persons who have not received HIV primary care, or who have dropped out of care should be a priority focus of prevention efforts.